

**Title:** Supporting Global Health at the Pediatric Department Level – Why and How

**Short Title:** Supporting Global Health in Pediatric Departments

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**Abbreviations:** Global Health (GH); Low-and Middle-Income Countries (LMIC); United States (U.S.)

**Contributors' Statements:**

Dr. Pitt developed the initial content outline for the manuscript, drafted the manuscript, developed the figures, critically revised the manuscript, approved the final manuscript as submitted, and agrees to be accountable for all aspects of the work.

Dr. John recruited the authorship team, contributed to the initial content outline for the manuscript, provided content expertise, critically revised the manuscript, approved the final manuscript as submitted, and agrees to be accountable for all aspects of the work.

Drs. Moore, Batra, Butteris, Airewele, Suchdev, and Steinhoff provided content expertise, assisted with literature searches, added to the content outline through multiple revisions, edited the manuscript critically, approved the final manuscript as submitted, and agree to be accountable for all aspects of the work.

## Introduction

Over the last twenty years, involvement in pediatric global health (GH) – the study and practice of improving the health of children worldwide – has evolved from an extracurricular activity to a robust academic pursuit that enhances the clinical, educational, and research missions of academic health centers (**Figure 1**). As evidenced by the paradigm shift laid out in the United Nations Sustainable Development Goals which focus on the health of all people worldwide, GH is no longer a field constrained by arbitrary borders.<sup>1</sup> Likewise, pediatric departments seeking to expand knowledge, train pediatricians, or improve care for children through research and innovation must be concerned with the health of *all* children, and addressing health equity which by definition implies GH work.<sup>2</sup> This paper aims to provide pediatric department leadership with the background and action steps necessary to respond to the call that that support for GH should not be a luxury limited to a few elite institutions, but a core part of pediatric education and research across the country<sup>3</sup>

## Why Support Global Health?

### Respond to Educational Demand

Trainee interest in GH continues to grow, and recent accounts indicate that nearly one-third of medical students and one-fifth of pediatric residents participate in a GH experience during their training.<sup>4,5</sup> Competitive trainees now expect these opportunities, with 22% of students indicating the presence of GH training as an integral factor in selecting a residency.<sup>5</sup>

In 2008, the Federation of Pediatric Organizations recommended that all residency programs offer core training in GH.<sup>6</sup> Expected competencies in GH have expanded far beyond the medical knowledge domain (eg. management of malaria or malnutrition) to include the

ability to work across cultures, use interpreters effectively, care for recent immigrants and returning travelers, provide value-based care with limited resources, and many others.<sup>7,8</sup>

Identifying and supporting faculty with expertise in these areas is necessary, as their skills are needed to implement this curriculum, as well as to provide high-quality preparation for learners interested in participating in GH electives.<sup>9</sup> Accordingly, two-thirds of residency programs now have dedicated GH faculty leads.<sup>10</sup>

### Respond to Local and Global Needs

As more than 90% of pediatric deaths occur in low-and-middle-income countries (LMIC), improving the health of all children requires an understanding of issues, disease management, and solutions germane to children from these settings.<sup>11</sup> During the Ebola and Zika crises, pediatric departments learned quickly how a seemingly esoteric GH topic could urgently become a top institutional priority. Beyond communicable diseases, issues that were historically more prevalent in other countries (eg, human trafficking and female genital cutting) are increasingly becoming relevant domestically. Additionally, providing care for underserved populations, refugees, international adoptees, and travelers requires special knowledge. These local-global issues make having intentional GH training and dedicated faculty essential to all departments, and not only to those looking to expand their international footprint.

Globally, the need for committed pediatricians cannot be overstated. More than 16,000 children under 5 years of age die daily, largely in LMIC, yet there are more pediatricians at a poorly attended departmental grand rounds in the U.S. than are available in some countries.<sup>11,12</sup> Departments must respond to this call to support the training of the global pediatric workforce by supporting educational partnerships aimed at keeping providers in their home country ideally

using train the trainer models).<sup>3,13–15</sup> Supporting bi-directional exchanges where international learners are able to learn and teach at the stateside partner institution is an important step in both striving for equity and addressing in-country workforce needs.<sup>16–18</sup>

### Support Meaningful Research

As the greatest burden of childhood disease remains in LMIC, research in these countries has the greatest potential to yield improvements in child health. In addition, conducting research in collaboration with international partners to address local disease priorities in LMIC can provide insights relevant to all children. For example, understanding the role of infection in the etiology of some cancers owes much to research on Burkitt lymphoma in Uganda,<sup>19</sup> and the oral rehydration solution and therapy now used worldwide was developed and evaluated in the 1960's in Bangladesh amidst cholera epidemics.<sup>20</sup>

### **How to Support Global Health**

Whereas first steps to support GH work often entail a commitment of financial and administrative resources, **Figure 2** details how initial seed support can lead to new revenue streams that can help maintain departmental investments in GH regardless of the size of the pediatric department.

#### *Commit to Global Health Education*

Implementing best practices in GH education – providing core content to all trainees and preparing those planning on international elective participation – requires faculty expertise and dedicated time for curriculum development, developing/nurturing international partnerships, pre-departure training, logistics coordination, curriculum, and debriefing.<sup>7,9</sup>

Mutually beneficial partnerships between U.S. and LMIC partners should be at the heart of all departmental GH efforts. To support this goal, departmental commitment and funding are needed for the formation of international research and education partnerships including bi-directional exchanges, and continuation of resident and faculty salaries while abroad.<sup>14,21,22</sup> Although malpractice claims against visiting providers are rare, malpractice insurance coverage for clinical work of trainees and faculty abroad should also be supported.<sup>23</sup> For small departments with limited resources, online GH curricula can provide core training – ideally supplemented by faculty training and mentorship.<sup>7,24–27</sup> Multi-institution partnerships and regional consortia can alleviate some of the challenges for smaller departments in forming and sustaining international relationships.<sup>7,28</sup>

### *Embed in Department*

Models for embedding GH into the academic departments include forming natural collaborations among divisions with overlapping research interests, having a dedicated GH division supported by associated research funding, clinical revenue (eg, travel clinics), or gifts, and developing freestanding GH centers in partnership with the academic health center. Regardless of the route, choosing to incorporate GH within the department is an essential step in building a program that can respond to the demands laid out above.

Many academic centers have successfully leveraged their work in GH to engage local foundations and private philanthropic organizations or partner under the umbrella of a GH center where common resources such as grant management or partnership development can be shared. Pursuit of these funding streams should not delay initial departmental investment that could in fact catalyze philanthropic enthusiasm.

### *Recognition of Global Health Output*

Faculty should be recognized for their contributions to GH work via promotion pathways that recognize the unique challenges inherent in this work (eg, a longer timeline when doing international research because of institutional and governmental bureaucracies). Curriculum development and administrative responsibilities of GH faculty should also be considered part of their academic contribution, as these comprise a large component of the faculty competencies.<sup>7,9,29</sup> As faculty are supported to engage in and present their work, institutions reap the benefits of becoming a competitive market for the growing body of trainees and faculty who cite GH as their primary academic interest.

### **Summary**

It is evident that as the demand for GH knowledge, clinical skills, and research grows from trainees, faculty, patients, funding agencies, and certifying organizations, having GH as part of a pediatric department is no longer optional. Departments that invest in GH programs can improve the health of children domestically and abroad, while concomitantly increasing faculty retention and trainee recruitment, expanding institutional recognition and footprint, and contributing to meaningful advocacy, clinical service, training, and research in the greatest areas of need globally.

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## Figure Legends

Figure 1:

**Title:** Global Child Health and the Three-Legged Stool of Academic Health Centers' Missions

**Legend:** LMIC = Low-and-middle-income countries

Figure 2:

**Title:** Action Steps to Increase Departmental Support of Global Health

**Legend:** GH = Global Health

## Supporting Global Health Allows Pediatric Departments to:

- Access growing **opportunities for funding** international research
- **Drive local philanthropic support** by promoting global health involvement
- Engage in **meaningful research** by partnering in areas with the greatest burden of disease

Research  
& Evaluation

- Meet **patient demand/** needs (global=local)
- Respond to areas with **greatest burden of childhood disease** in LMIC
- Support **faculty interest** in global health
- Improve clinicians' capacity to deliver efficient **cost-effective care** in the US

Clinical Care  
& Service

- **Improve recruitment** by responding to trainee demand
- Respond to pediatric accreditation/ association emphasis that **GH training is not optional**
- **Support training within LMIC** in context of mutually beneficial bi-directional partnerships

Education  
& Training

## Initial Commitment

- Recruit/retain dedicated **GH faculty with protected time**
- Support trainee **GH education for all** and international as well as local-global **experience(s)**
- Pursue **international partnerships/** support **bi-directional exchanges** of trainees



## Embed GH in Department

- Consider possible **new clinical revenue streams** (travel clinic, international adoption, immigrant health, destination health/foreign surgical referrals)
- **Leverage natural collaborations** in the department (nutrition, infectious disease, neonatology, community health)



## Promote GH Work

- Recognize and **promote faculty** based on the unique academic, clinical, and education output
- **Leverage foundation and philanthropic support** of GH mission
- Become a **destination for competitive trainees** and faculty with GH interest

## GH Revenue Generators

- Unique opportunities for **philanthropic & grant** support
- **Dedicated clinical revenue** through natural pairings that support mission
- Engaged faculty = **decreased turnover**